IN THE CLAIMS:

Please cancel claims 1-42.

Please add the following new claims:

43. (New) A method for determining the location of units on semiconductor devices comprising:

determining the address of a unit; and

determining the physical location of said unit by applying a set of displacement and mirror factors to the address.

44. (New) The method in claim 43, wherein said address comprises a two-dimensional failmap address, said physical location comprises a n-dimensional electrical address of said failure location and n comprises a natural number.

45. (New) The method in claim 43, further comprising:

identifying repeatable units of said units;

preparing a look up table for translating buffer coordinates of a reference unit of said repeatable units;

displacing information from said look up table to correspond to said repeatable units; and modifying results of said displacing by a linear operation.

46. (New) The method in claim 45, wherein said displacing includes mirroring said information from said look up table to correspond to said repeatable units

47. (New) The method in claim 45, wherein said reference unit comprises a smallest repeatable unit.

48. (New) The method in claim 47, further comprising:

identifying a first level of repeatable units, having a size larger than said smallest repeatable unit;

identifying a second level of repeatable units, having a size larger than said first level of repeatable units; and

recursively displacing said information from said look up table to correspond respectively to said smallest repeatable units, said first level of repeatable units and second level of repeatable units.

49. (New) The method in claim 45 wherein said displacing and modifying comprise translating said buffer coordinates using the following function:

$g(x,y) = A \bullet f(ax + b, cy+d) + B;$

wherein variable A comprises one of an amplification and pattern reversal value, variable B comprises a linear displacement of said information from said look up table, variable b comprises a horizontal displacement from said reference unit, variable d comprises a vertical displacement from said reference unit, variable a comprises horizontal mirroring and variable c comprises vertical mirroring.

50. (New) A method for determining physical memory cell coordinates of a memory device, said method comprising:

inputting a physical cell coordinate of a memory device; and

applying a set of displacement and mirror factors to said physical cell coordinate to translate said physical cell coordinate into a logical address.

51. (New) The method in claim 50, wherein said logical address comprises an N-dimensional logical address, wherein N comprises a natural number.

52. (New) The method in claim 50, further comprising:

identifying repeatable memory cells of said memory device;

preparing a look up table for translating buffer coordinates of a reference memory cell of said repeatable memory cells;

displacing information from said look up table to correspond to said repeatable memory cells; and

modifying results of said displacing by a linear operation.

53. (New) The method in claim 50, wherein said displacing includes mirroring said information from said look up table to correspond to said repeatable memory cells.

54. (New) The method in claim 50, wherein said reference memory cell comprises a smallest repeatable memory cell.

55. (New) The method in claim 54, further comprising:

identifying a first level of repeatable memory cells, having a size larger than said smallest repeatable memory cell;

identifying a second level of repeatable memory cells, having a size larger than said first level of repeatable memory cells; and

recursively displacing said information from said look up table to correspond respectively to said smallest repeatable memory cells, said first level of repeatable memory cells, and second level of repeatable memory cells.

56. (New) The method in claim 50, wherein said displacing and modifying comprise translating said buffer coordinates using the following function:

$$g(x,y) = A \bullet f(ax + b, cy+d) + B;$$

wherein variable A comprises one of an amplification and pattern reversal value, variable B comprises a linear displacement of said information from said look up table, variable b

comprises a horizontal displacement from said reference memory cell, variable d comprises a vertical displacement from said reference memory cell, variable a comprises horizontal mirroring and variable c comprises vertical mirroring.

57. (New) A method for determining physical memory cell coordinates of a memory device, said method comprising:

inputting a physical cell coordinate of a memory device; and

applying a set of displacement and mirror factors to said physical cell coordinate to translate said physical cell coordinate into one of a logical address, an electrical address, and a structural address,

wherein said logical address, said electrical address, and said structural address comprise N- dimensional addresses, and wherein N comprises a natural number.

58. (New) The method in claim 57, further comprising modifying results of said applying by a linear operation.

59. (New) The method in claim 57, wherein said applying includes mirroring information from a look up table to correspond to said memory cell coordinates.

60. (New) The method in claim 57, wherein said memory cell coordinates comprises a smallest repeatable memory cell.

61. (New) The method in claim 60, further comprising:

identifying a first level of repeatable memory cells, having a size larger than said smallest repeatable memory cell;

identifying a second level of repeatable memory cells, having a size larger than said first level of repeatable memory cells; and

recursively displacing said information from a look up table to correspond respectively to said smallest repeatable memory cells, said first level of repeatable memory cells, and second level of repeatable memory cells.

62. (New) The method in claim 57, wherein said applying comprise translating buffer coordinates using the following function:

$$g(x,y) = A \bullet f(ax + b, cy+d) + B;$$

wherein variable A comprises one of an amplification and pattern reversal value, variable B comprises a linear displacement of said information from said look up table, variable b comprises a horizontal displacement from said reference memory cell, variable d comprises a vertical displacement from said reference memory cell, variable a comprises horizontal mirroring and variable c comprises vertical mirroring.